DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-000433 Address: 333 Burma Road **Date Inspected:** 10-Sep-2007

City: Oakland, CA 94607

OSM Arrival Time: 630 **Project Name:** SAS Superstructure **OSM Departure Time:** 1530 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name: Wang Nan & Gu Xin Zhai **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A Yes N/A **Qualified Welders:** No **Verified Joint Fit-up:** Yes No N/A N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS: Delayed / Cancelled:** Yes No N/A

34-0006 **Bridge No: Component:** MOCK UP

Summary of Items Observed:

Elevation 114:

Caltrans Quality Assurance (QA) Inspector Charlie Franco was present at the time requested to randomly observe welding being performed for the fabrication of the Mock Up at elevation 114. The QA Inspector randomly observed ZPMC welder Zhang Zhou, utilizing the Flux Cored Arc Welding (FCAW) process to weld longitudinal stiffener MP1009 to skin plate B piece marks MA101 to MP1014. Mr. Zhang was utilizing ZPMC weld procedure specification WPS-B-T-2332-TC-U5-F. The QA Inspector observed ZPMC CWI Gu Xin Zhai monitoring weld parameters. The QA Inspector also performed random verification of the above weld parameters and documented as follow: welding amperage 298 amps, welding voltage 30.7 volts and a travel speed of 255 millimeters per minute. Weld parameters appeared to comply with the above approved ZPMC weld procedure specification (WPS).

The QA Inspector observed a ZPMC helper utilizing a deburring tool to clean up the root passes on the 500 mm long complete penetration (CJP) welds attaching longitudinal stiffeners piece marks MP1006 and MP1009 to skin plate B piece marks MA101 to MP1014.

The QA Inspector randomly observed ZPMC welder Xiang Huanfeng, utilizing the Submerged Arc Welding (SAW) process to weld the seam weld between skin plate sub assembly MA109 Face E piece marks MA109 to MP1023. Mr. Zhang was utilizing ZPMC weld procedure specification WPS-B-T-2321-B-P3-S. The QA Inspector observed ZPMC CWI Wand Nan monitoring weld parameters. The QA Inspector also performed random verification of the above weld parameters and documented as follows: welding amperage 638 amps,

WELDING INSPECTION REPORT

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welding voltage 32.9 volts and a travel speed of 595 millimeters per minute. Weld parameters appeared to comply with the above approved ZPMC WPS. The following photograph provides additional detail.



Summary of Conversations:

There were no relevant conversations.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

Inspected By:	Franco, Charlie	Quality Assurance Inspector
Reviewed By:	Cochran,Jim	QA Reviewer